

Major Achievements of the Department from 2012 to 2020

Awards/recognitions received at the national and international level

- ☐ Post-doctoral fellows : Dr Manzoor Ahmad Mir, two years Postdoctoral Research fellow at Majmaah University KSA.
- ☐ Dr. Peer Abdul Haseeb Shah received Early Career Research Award (ECR/2016/000463) funded by SERB.
- ☐ Women Scientist (WOS-A): Miss Bisma Malik joined as WOS-A in the year 2017.
- ☐ National Post Doc Fellow: Miss Arifa Jan Joined as NPDF in the year 2017

Books/book chapters/research papers/e-contents published from 2012 to 2017

20 International papers Published during the assessment period.

Dr. Manzoor Ahmad Mir	Assistant Professor	drmanzoor@kashmiruniversity.ac.in	9622901319
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Administrative position held: Coordinator/Head
Department of Bioresources
School of Biological Sciences

Role in corporate life:

1. DIQA Nodal Officer and NIRF Coordinator
2. Website Incharge of the Department.
3. Grievance Redressal Nodal Officer
4. Career Counselling and Placement Officer

Class Activities:

Semester / Year	Course	Lectures	Practical's	Seminars	Tutorials	Online Classes	Total
I	M.Sc. Bioresources	4	4	4	8	12	32
I	M.Sc. Bioresources	4	4	4	8	12	32
I	M.Sc. Bioresources	2	2	2	4	8	18
I	M.Sc. Bioresources	4	8	4	4	12	32
I	M.Sc. Bioresources	8	8	8	16	32	72
I	M.Sc. Bioresources	8	8	8	16	32	72
II	M. Sc	4	4	4	8	12	32
II	M. Sc	4	4	4	8	12	32
II	M. Sc	2	2	2	4	6	16
II	M. Sc	2		2	4	4	12
II	M. Sc	4		4	8	8	24
III	M. Sc	4	4	4	8	16	36
III	M.Sc. Bioresources	4		8	8	8	28
III	M.Sc. Bioresources	8	8	8	16	32	72
III	M.Sc. Bioresources	8	8	8	16	32	72

III	M.Sc. Bioresources	4	8	4	4	12	32
III	M.Sc. Bioresources	4	8	4	4	12	32
III	M.Sc. Bioresources	8	8	8	8	24	56
III	M. Sc	4	4	4	8	16	36
III	M. Sc	4	4	4	8	16	36
III	M. Sc	4		4	8	8	24
IV	M.Sc. Bioresources	8	8	8	16	24	64
IV	M.Sc. Bioresources	8	8	8	16	24	64
IV	M.Sc. Bioresources	8	8	8	16	24	64
IV	M.Sc. Bioresources	4		4	8	16	32
Total		126	120	130	232	414	1022

H Index: 8

i10 Index: 4

Cumulative Impact Factor: 49

Average Impact Factor: 2.5

Citations: 129

Research Papers Published

Joint Authored:

- "Double-Crosser of the Immune System: Macrophages in tumor progression and metastasis" *Current Immunological Reviews*, **15**(2): DOI No. 10.2174/1573395515666190611122 {ISSN: 1875-631X}
- "Recent advances in metabolites from medicinal plants in cancer prevention and treatment" *Current Immunological*, **15**(2): DOI No. 10.2174/1573395515666191102094 {ISSN: 1875-631X}
- "Nanobodies: the magic bullets in therapeutics, drug delivery and diagnostics" *Human Antibodies*, **21**(1): DOI No. 10.3233/HAB-190390 {ISSN: 1875-869X}
- "Recent Advances in Chemotherapeutic Implications of Deguelin, A Plant Derived Retinoid" *The Natural Products Journal*, **11**(2): DOI No. 10.2174/2210315510666200128125 {ISSN: 2210-3163}
- "Targeting Different Pathways Using Novel Combination Therapy in Triple Negative Breast Cancer" *Current Cancer Drug Targets*, **20**(8): DOI No. 10.2174/1570163817666200518081 {ISSN: 1873-5576}
- "Development of New Therapeutics to Meet the Current Challenge of Drug Resistant Tuberculosis" *Current Pharmaceutical Biotechnology*, **22**(4): DOI No. 10.2174/1389201021666200628021 {ISSN: 1873-4316}
- "Rising trends of Cancers in Kashmir valley: Distribution Pattern, Incidence and Causes" *Journal of Oncology Research and Treatment*, **5**(2): 150 -163
- "Novel Strategies to Combat the Emerging Drug Resistance in Human Pathogenic Microbes" *Current Drug Targets*, **22**(17): DOI No. 10.2174/1389450121666201228123 {ISSN: 1873-5592}
- "Tumor microenvironment promotes breast cancer chemoresistance" *Cancer Chemotherapy and Pharmacology*, **87**(2): DOI No. 10.1007/s00280-020-04222-w {ISSN: 1432-0843}
- "Glucose - The X factor for the survival of human fungal pathogens and disease progression in the host" *Microbial Research*, **247**(6): DOI No. 10.1016/j.micres.2021.126725 {ISSN: 2036-7481}
- "Prognostic significance and targeting tumor-associated macrophages in cancer: new insights and future perspectives" *Breast Cancer*, **28**(3): DOI No. 10.1007/s12282-021-01231-2 {ISSN: 1880-4233}

Books Published

Single Authored:

- *"Natural Medicine in Cerebrovascular Diseases"*. Ariana Publishers New Delhi India. {ISBN: 9789385497940} pp 127
- *"Basics and Fundamentals of Immunology"*. Nova Science Publishers USA. {ISBN: 978-1-53616-639-2} pp 334
- *"Immunoglobulins, Magic Bullets and Therapeutic Antibodies"*. Biomedical NOVA Science Publishers New York USA. {ISBN: 978-1-53616-903-4} pp 365
- *"Cytokines and their Therapeutic potential"*. Nova Science Publishers New York USA. {ISBN: 978-1-53617-017-7} pp 285
- *"The fundamentals of Hypersensitivities and Allergies"*. Nova Biomedical Science Publishers New York USA. {ISBN: 978-1-53617-012-2} pp 184
- *"Plant Metabolites in the Treatment of Cancer and cerebrovascular Diseases"*. OMICS Science International Publishers USA. {ISBN: 978-1-63278-073-7} pp 176

Joint Authored:

- *"Nanomedicine in Human Health Therapeutics and Drug Delivery/Applications of Nanomaterials in Agriculture, Food Science, and Medicine"*. IGI Global Publishers. {ISBN: 9781799855644} pp 23

Review Assignment

- Review a Research Paper entitled, "Efficacy and safety of Anti-interleukin-17A monoclonal antibody secukinumab in treatment of ankylosing spondylitis: A meta-analysis". Published by Current Rheumatology Reviews by Bentham Science Publishers {ISSN: 1875-6360}
- Review a Research Paper entitled, "Systematic review and meta-analysis of the papillomavirus prevalence in breast cancer fresh tissues". Published by Breast Diseases {ISSN: ISSN No. 1558-1551 BD-201046}
- Review a Research Paper entitled, "Role of Tim-3 in regulating tumorigenesis, inflammation, and antitumor immunity, and as a therapeutic target in cancer therapy". Published by Cancer Biomarkers {ISSN: ISSN No. 1875-8592}
- Review a Research Paper entitled, "Usefulness of protein-based salivary markers in the diagnosis of oral potentially malignant disorders: a systematic review and meta-analysis.". Published by Cancer Biomarkers {ISSN: ISSN No. 1875-8592}
- Review a Research Paper entitled, "Nanobodies: The Future Of Antibody Based Therapeutics". Published by Cancer Biotherapy & Radiopharmaceuticals by Mary Ann Liebert Publishers {ISSN: 1084-9785}
- Review a Research Paper entitled, "Spatio-temporal distribution of Agrin after intrathecal injection and its protective role on cerebral ischemia/reperfusion injury". Published by Advanced Science by Willey Online Library {ISSN: 2198-3844}
- Review a Research Paper entitled, "Consumption of an extremely biodiverse probiotic and a supplement based on microbial chondroitin sulfate is associated with very low serum alpha-N-acetylgalactosaminidase (nagalase) activity and decrease of C-reactive protein values". Published by American Journal of Immunology {ISSN: 1558-3775}
- Review a Research Paper entitled, "Implications of Cannabis Legalization: A National and International Perspective.". Published by Adolescent Psychiatry {ISSN: ISSN No. 2210-6774 BMS-APS-2020-HT7-1998-3}
- Review a Research Paper entitled, "Sentinel lymph node biopsy in breast cancer guided by CT lymphography; history, evolution and current applications". Published by Breast Diseases {ISSN: ISSN No. 1558-1551 BD-201046}
- Review a Research Paper entitled, "The RIG-I Signal Pathway Mediated Panax Notoginseng Saponins Anti-inflammatory Effect in Ischemia stroke". Published by Evidence-Based Complementary and Alternative Medicine {ISSN: ISSN No. 1741-4288 MS: 8878428}

Conferences /Seminars /Symposia attended with presentation

- Presented a paper (oral) in "Learning Outcomes-Based Curriculum Framework for Zoology", on "Infectious diseases prevalence, incidence and the Treatment options (Emphasis on Tuberculosis)", organized by *Higher Education Department J&K Government*, dated 11-03-2020
- Presented a paper (oral) in "Role of ICT in Teaching Learning Process", on "Role of Information and Communication Technology (ICT) for enhancing Teaching Learning Process", organized by *GDC Anantnag and Higher Education Department J&K Government*, dated 20-08-2020
- Presented a paper (oral) in "Emerging Aspects in Parasitology: A shift in Approach", on "Emerging Aspects in Parasite Immunology", organized by *GDC Anantnag and Higher Education Department J&K Government*, dated 03-10-2020
- Presented a paper (oral) in "Covid-19 Pandemic: Crisis and Aftermath", on "Landscape of COVID19 Vaccines and the Future Challenges", organized by *Department of Biochemistry & Biochemical Engineering, Jacob Institute of Biotechnology & Bioengineering, SHUATS, Prayagraj UP India*, from 20-07-2020 to 21-07-2020
- Presented a paper (oral) in "Role of Bioresources of J&K in Economic Development", on "Bioresources in Economic Development of Jammu and Kashmir", organized by *ENVIS HUB Govt of Jammu and Kashmir*, dated 23-12-2020

Training Courses /Workshop /Conferences /Seminars /Symposia attended without presentation

- Attended aRefresher Course on "*Two weeks long Refresher Course in Science*", organized by UGC-HUMAN RESOURCE DEVELOPMENT CENTRE UNIVERSITY OF KASHMIR, from 02-01-2021 to 15-01-2021
- Attended aWorkshop on "*Two Weeks Online Workshop on 'Preparing Research Proposals'*", organized by PMMMNM MHRD-GOI and GNDU Amritsar, from 11-02-2021 to 24-02-2021
- Attended aRefresher Course on "*Refresher Course on Information & Communication Technology*", organized by UGC-HRDC University of Hyderabad, from 24-08-2020 to 05-09-2020
- Attended aWorkshop on "*Two Weeks online Workshop on 'Research Tool Preparation'*", organized by PMMMNMTT MOE Govt of India and Guru Nanak Dev University Punjab, from 16-10-2020 to 29-10-2020
- Attended aWorkshop on "*Plant Taxonomy Classical and Modern Methods*", organized by Centre for Biodiversity and Taxonomy (CBT) Department of Botany University of Kashmir, from 12-03-2020 to 14-03-2020
- Attended aSeminar on "*Develop Design and Deliver MOOC as a tool for blended learning*", organized by PMMMNM MHRD-GOI and GNDU Amritsar, from 09-01-2020 to 15-01-2020
- Attended aSeminar on "*Two Day Training Cum Twinning Training Programme on Assembly working and Field Applications of Fieldscope*", organized by Division of Animal Biotechnology SKUAST Kashmir, from 04-02-2020 to 05-02-2020
- Attended aWorkshop on "*One Day Online Workshop on Planning and Organizing Research*", organized by School of Education GNDU Amritsar and Elsevier USA, dated 10-04-2020
- Attended aWorkshop on "*One Day Workshop on Book and Article Publishing*", organized by PMMMNMTT GNDU Amritsar and Nature Springer UK, dated 22-04-2020
- Attended aSeminar on "*One Day Seminar on Planning and Organising Research using Scopus and Mendley*", organized by Department of Bioresources University of Kashmir and Elsevier USA, dated 26-04-2020
- Attended aWorkshop on "*One Day Workshop on Writing Research and Springer Nature-Link Demonstration*", organized by GNDU Amritsar and Springer Nature UK, dated 29-04-2020
- Attended aSeminar on "*One Day Online Seminar on Accelerating Research Planning*", organized by IUST and Elsevier USA, dated 04-05-2020
- Attended aRefresher Course on "*FDP on Online Course Design, Development and Delivery*", organized by UGC-HRDC University of Hyderabad, from 06-05-2020 to 08-05-2020
- Attended aRefresher Course on "*One Week FDP on Moodle Learning Management system*", organized by Institute of Technology Hyderabad and IIT Bombay, from 04-05-2020 to 10-05-2020
- Attended aWorkshop on "*Research Capacity Building-A strategy to Promote Research culture in Higher Education*", organized by IQAC of BVC Osmania University Hyderabad, from 12-05-2020 to 14-05-2020
- Attended aConferences on "*Surge of Genomic Datasets: Microbes to Plants*", organized by National Institute of Plant Genomic Research Institute New Delhi, from 14-05-2020 to 18-05-2020

- Attended aSeminar on "*e-workshop on Virtual Labs*", organized by BVC Osmania University Hyderabad and IIT Guwahati, dated 14-05-2020
- Attended aWorkshop on "*Online Tools RaX Software for Reviewing and Managing Research*", organized by RaX Labs Inc and GNDU Amritsar, dated 15-05-2020
- Attended aSeminar on "*Latest Technology Training Programme-ICT an efficient tool for Effective Learning*", organized by Bhavnahs Vivekananda College Osmani University Hyderabad, dated 16-05-2020
- Attended aRefresher Course on "*One Week FDP on PHP and MySQL*", organized by JNTUH College of Engineering and IIT Bombay, from 18-05-2020 to 23-05-2020
- Attended aWorkshop on "*Empowering Effective Scientific Research by harnessing the Power of Web of Science (Clarivate Analytics)*", organized by PMMMNMTT School of Education GNDU Amritsar, dated 20-05-2020
- Attended aRefresher Course on "*National Online FDP on Digital Literacy Stepping into a New Normal*", organized by MIT School of Education MIT-ADT University Pune, from 21-05-2020 to 23-05-2020
- Attended aWorkshop on "*Creation of Google Sites and OER*", organized by RBVRR Womens College Hyderabad, dated 26-05-2020
- Attended aRefresher Course on "*Annual Refresher Programme in Teaching (ARPIT) - 2020 (Leadership And Governance In Higher Education. Level 2)*", organized by Ministry of Education through University of Pune, from 15-11-2020 to 15-02-2021
- Attended aWorkshop on "*Online Training Programme on Working in BSL-3 Laboratory and Practices for handling Mycobacterium and tuberculosis*", organized by BSL-3 Lab, Department of Biochemistry, University of Delhi, from 22-03-2021 to 28-03-2021
- Attended aWorkshop on "*7 Days Online Training Programme on Essentials of Bioinformatics*", organized by IDP-NAHEP and SKUAST Kashmir, from 24-03-2021 to 31-03-2021

Lead Lecture / Chair Session / Invited Talk

- Chaired a session in *Covid -19 Pandemic: Crisis and Aftermath*. Organized by SHAUTS Allahabad University, Department of Biochemistry, 20 - 07-2020 to 21-07-2020
- Delivered a lecture in *Research Methodologies Workshop "Effective Academic Writing"*. Organized by Department of Psychology, University of Kashmir, dated 04 - 03-2021
- Delivered a lecture in *Role of Information and Communication Technology (ICT) for enhancing Teaching Learning Process*. Organized by GDC Anantnag Higher Education Department Govt of J&K, dated 20 - 08-2020
- Delivered a lecture in *Emerging Aspects in Parasitology: A shift in Approach*. Organized by Department of Zoology GDC Anantnag Higher Education Department Govt of J&K, dated 20 - 10-2020
- Delivered a lecture in *Role of Bioresources of J&K in Economic Development*. Organized by ENVIS-HUB J&K, Department of Ecology, Environment and Remote Sensing Govt of J&K, dated 23 - 12-2020
- Delivered a lecture in *Learning Outcomes-Based Curriculum Framework for Zoology*. Organized by GDC Shopian and Higher Education Department J&K Government, dated 11 - 03-2020
- Delivered a lecture in *Awareness Programme on Novel Coronavirus*. Organized by Americam Society of Microbiologista and Department of Bioresources University of Kashmir, dated 14 - 03-2020

Research Projects initiated, ongoing and completed:

Description	Title of the Project	Acting As	Funding Agency	Dated	Amount Sanctioned/ Proposed (in Rs.)	Amount released during current year (in Rs.)
Ongoing project	Elucidation of Molecular Mechanisms of Drug and Multidrug Resistance of MTB in Kashmir Valley	PI	SERB-DST GOI	10-06-2019	1,850,000.00	610,000.00

Joint Research Guidance

Details	Registered in 2020	Total presently under supervision	Awarded
Ph.D	4	4	0

Awards / Medals / Honours received:

1. Awarded Teachers **Summer Research Fellowship Programme (SRFP-2019)** by **Indian Academy of Sciences** for an IASc-INSA-NASI vide No. SRFP-LFT94 (2019) dated; 02-04-2019
2. Awarded **Teacher Associate Research Excellence Fellowship** by Science and Engineering Research Board Department of Science and Technology SERB-DST Govt. of India in the year 2018 Vide No. TAR/2018/001213 dated: 10-06-2019
3. Awarded British Royal Society UK Membership by the British Royal Society UK from 1st April 2021
4. Completed the MOOC course in Immunology by NPTEL from IIT Bombay
5. Completed the MOOC course in Introduction to Research by NPTEL through IIT Chennie
6. Completed the ARPIT Course through SWAYAM MHRD Govt of India
7. Completed the MOOC Course on Human Genetics by CEC-UGC through SWAYAM University of Mysore

Other information:

MOOC Course Development for MHRD-SWAYAM

Developed the Fresh Massive Open Online Course (MOOC) on Immunology (4 Credit Course) having 44 Lecture Modules with 4 Quadrant Approach.

Worked as developer for 24 MOOC Lectures and Presenter for 34 MOOC Lectures

Worked as Course Coordinator for the Immunology and successfully completed the MOOC on SWAYAM-Platform of MHRD Ministry

https://swayam.gov.in/nd2_cec20_bt05/preview

Presently Launched the Endocrinology MOOC on SWAYAM Platform of MHRD Ministry

Endocrinology MOOC (4 Credit Course) is having 41 Lecture Modules

Acting as Course Coordinator for the Endocrinology MOOC Course

https://swayam.gov.in/nd2_cec20_bt21/preview

Dr Reiaz Ul Rehman (Assistant Professor)						
Characterization of Actinomycetes and Trichoderma spp. for cellulase production utilizing crude substrates by response surface methodology	Bioresources	Tanveer Pirzadah, Shashank Garg, Joginder Singh, Ashish Vyas, Manish Kumar, Naseem Gaur, Madhu Bala, Reiaz Ul Rehman , Ajit Varma, Vivek Kumar and Manoj Kumar.	Bioresources	Springer Plus	2014	2193-1801
Ion and Lipid signaling in apical growth-a dynamic machinery responding to environmental cues.	Bioresources	Rui Malho, Susana Serrazina, Laura Saavedra, Fernando Vaz Dias, Reiaz Ul Rehman	Bioresources	Frontiers in Plant Science	2015	1664-462X

Influence of various parameters on cellulase and xylanase production by different strains of <i>Trichoderma species</i> .	Bioresources	Tanveer Bilal, Bisma Malik, Reiaz ul Rehman , Manoj Kumar	Bioresources	Austin Journal of Analytical Chemistry and Pharmaceutical Science	2015	2381-8913
Metabolite profiling of tartary buckwheat - An underutilized	Bioresources	Tanveer Bilal Pirzadah, Bisma Malik, Inayatullah Tahir, Reiaz Ul Rehman	Bioresources	Journal of phytology	2016	2075-6240

neutraceutical crop of Kashmir Himalaya						
Metabolite Fingerprinting and Antioxidant Potential of Tartary Buckwheat- an Underutilized Pseudocereal crop from Kashmir Region	Bioresources	Tanveer Bilal Pirzadah, Bisma Malik, Inayatullah Tahir, Mohammad Irfan Qureshi, Reiaz Ul Rehman	Bioresources	Free Radicals and Antioxidants	2016	2231-2536
Vivipary in <i>Fagopyrum esculentum</i> . Folia	Bioresources	Tanveer Bilal Pirzadah, Bisma Malik, Inayatullah Tahir, Reiaz ul Rehman	Bioresources	Biologica ET Geologica.	2016	2335-2914
Phytochemical studies on <i>Cichorium intybus</i> L. (chicory) from Kashmir Himalaya using GC-MS.	Bioresources	Bisma Malik, Tanveer Bilal Pirzadah, Inayatullah Tahir, Malik Zainul Abidin, Reiaz Ul Rehman	Bioresources	Journal of Pharmacy Research.	2016	00974694, 09746943
Dr Peer Abdul Haseeb Shah (DST-INSPIRE Faculty)						
Novel Role of a Family of Major Facilitator Transporters in Biofilm Development and Virulence of <i>Candida albicans</i> .		Abdul Haseeb Shah , Ashutosh Singh, Sanjiveeni Dhamgaye, Neeraj Chauhan, Korivi Jyothiraj Suneetha, Rupinder Kaur, Pranab Mukherjee, Jyotsna Chandra, Mahmoud A. Ghannoum, Dominique Sanglard, Shyamal K. Goswami and Rajendra Prasad.	Bioresources	Biochemical Journal	2014	Print ISSN: 0264-6021 Online ISSN: 1470-8728
Mutational Analysis of Intracellular Loops Identify Cross Talk with Nucleotide Binding Domains of the Yeast ABC Transporter Cdr1p.		Abdul Haseeb Shah , Manpreet Kaur Rawal, Sanjiveeni Dhamgaye, Sneha Sudha Komath, Ajay Kumar Saxena, and Rajendra Prasad	Bioresources	<i>Scientific Reports</i>	2015	ISSN 2045-2322 (online)
ABC transporter Cdr1p harbors charged residues in the intracellular loop and nucleotide-binding domain critical for protein trafficking and drug resistance.		Abdul Haseeb Shah , Atanu Banerjee, Manpreet Kaur Rawal, Ajay Kumar Saxena, Alok Kumar Mondal and Rajendra Prasad.	Bioresources	FEMS Yeast Research	2015	Online ISSN 1567-1364 Print ISSN 1567-1356
MFS transporters of <i>Candida</i> species and their role in clinical drug resistance.		Archana Kumari, Abdul Haseeb Shah , Rajendra Prasad	Bioresources	FEMS Yeast Research	2016	Online ISSN 1567-1364 Print ISSN 1567-1356
In Vitro Effect of Malachite Green on <i>Candida albicans</i> Involves Multiple Pathways and Transcriptional Regulators UPC2 and STP2.		Sanjiveeni Dhamgaye, Frederic Devaux, Raman Manoharlal, Patrick Vandeputte, Abdul Haseeb Shah , Ashutosh Singh, Corinne Blugeon, Dominique Sanglard, and Rajendra Prasad	Bioresources	<i>Antimicrob Agents Chemother</i>	2012	ISSN: 0006-291X
Alanine scanning of all cysteines and		Rajendra Prasad, Abdul Haseeb Shah , Hina Sanwal, Khyati	Bioresources	<i>Biochem Biophys Res</i>	2012	ISSN: 0006-291X

construction of a functional cysteine-less Cdr1p, a multidrug ABC transporter of <i>Candida albicans</i> .		Kapoor.		<i>Commun</i>		
Newly identified motifs in <i>Candida albicans</i> Cdr1 protein NBDs are PDR subfamily-specific and functionally asymmetric		Manpreet Kaur Rawal, Atanu Banerjee, Abdul Haseeb Shah, Mohammad Firoz Khan, Sobhan Sen, Ajay Kumar Saxena, Brian C. Monk, Richard D. Cannon, Rakesh Bhatnagar, Alok Kumar Mondal & Rajendra Prasad	Bioresources	<i>Scientific Reports</i>	2016	ISSN 2045-2322 (online)

Dr Reiaz Ul Rehman (Assistant Professor)					
Dr Reiaz Ul Rehman (Book)	Bioresources	<i>“Plant Signalling: Understanding the molecular cross talk”.</i>	Springer Science+Business Media, LLC; 233 Spring Street, New York, NY 10013,USA	ISBN 978-81-322-1542-4 online, ISBN 978-81-322-1541-7	2013
<i>Unravelling Salt Stress in Plants through Proteomics In Salt stress in plants: Signalling, Omics and Adaptations.</i>	Bioresources	Hakeem, K.R., Chandna, R., Rehman, R.U., Tahir, I and Iqbal M <i>In: Salt stress in plants: Signalling, Omics and Adaptations. (2012), Ed. Parvaiz Ahmad, Azooz MM, Prasad M.N.V</i>	Springer science + Business Media LLC, NY,USA.	ISBN 978-1-4614-6107-4.	2012
Variability in <i>Fusarium</i> Species causing wilt disease in crops: A transcriptomic approach to characterize dialogue between host and pathogen.	Bioresources	Rehman, R.U., Hakeem, K.R., Tahir I, Teli, M.A <i>In: Crop Improvement New Approaches And Modern Techniques. Ozturk M et al., (eds)</i>	Springer science + Business Media LLC, NY, USA	ISBN 978-1-4614-7028-1(e-book); ISBN 978-1-4614-7027-4(Hard cover).	2013
Lignocellulosic biomass: As future alternative for bioethanol production.	Bioresources	Tanveer Bilal Pirzadah, Bisma Malik, Manoj Kumar, Reiaz Ul Rehman. Edited volume on “Biomass and Bioenergy: Processing, Properties and Applications”.	Publisher: Springer Science+Business Media, LLC; 233 Spring Street, New York, NY 10013, USA.	ISBN 978-3-319-07578-5 (ebook) ISBN 978-3-319-07577-6	2013
Phytoremediation: An	Bioresources	Tanveer Bilal Pirzadah,	Elsevier	ISBN	

eco-friendly green technology for pollution prevention, control and remediation.		Bisma Malik, Inayatullah Tahir, Manoj Kumar, Reiaz Ul Rehman In: Soil remediation and plants		9780127999371	2014
SNARE proteins as signalling elements.	Bioresources	Reiaz ul Rehman , Gian-Pietro Di Sanse bastiano <i>In: Plant Signalling: Understand molecular cross talk.</i>	Springer Science+Business Media, LLC; 233 Spring Street, New York, NY 10013, USA.	ISBN 978-81-322-1542-4 online, ISBN 978-81-322-1541-7	2013
Plant Rab GTPases in membrane trafficking and signaling	Bioresources	Reiaz ul Rehman , Gian-Pietro Di Sansebastiano <i>In: Plant Signalling: Understand molecular cross talk”.</i>	Springer Science+Business Media, LLC; 233 Spring Street, New York, NY 10013, USA	ISBN 978-81-322-1542-4 online, ISBN 978-81-322-1541-7.	2013
Cyclic nucleotide gated channels- Essential signalling components in plants for fertilization and immunity responses	Bioresources	Reiaz ul Rehman <i>“Plant Signalling: Understand molecular cross talk”.</i>	Springer Science+Business Media, LLC; 233 Spring Street, New York, NY 10013, USA	ISBN 978-81-322-1542-4 online, ISBN 978-81-322-1541-7	2013
Recent trends and approaches in phytoremediation	Bioresources	Bisma Malik, Tanveer Bilal Pirzadah, Inayatullah Tahir, Reiaz Ul Rehman	Springer	9780127999371	2014
Biomass pellet technology: A green approach for sustainable development.	Bioresources	Bisma Malik, Tanveer Bilal Pirzadah, Sheikh Tajamul Islam, Inayatullah Tahir, Manoj Kumar, Reiaz Ul Rehman	Springer International.	978-3-319-13846-6.	2015
Power Reservoirs of Jumble based Biomass in Asia.	Bioresources	Manoj Kumar, Pooja Bhadrecha, Tanveer Bilal Pirzadah, Bisma Malik, Reiaz Ul Rehman , Ram Prasad ,Umesh Chandra Pachouri Edited volume on “Agricultural biomass based potential material	Springer International.	ISBN: 978-3-319-13846-6.	2015
Phenomics Science: An integrated inter-disciplinary approach for crop improvement.	Bioresources	Bisma Malik, Tanveer Bilal Pirzadah, Inayatullah Tahir, Imtiyaz Murtaza, Reiaz Ul Rehman	Apple Academic Press Inc. 9 Spinnaker Way Waretown, NJ 08758 USA.	13:978-1-77188-455-6	2015
Biomass pellet technology: A green approach for sustainable development.	Bioresources	Bisma Malik, Tanveer Bilal Pirzadah, Sheikh Tajamul Islam, Inayatullah Tahir , Manoj Kumar, Reiaz Ul Rehman Edited volume on “Agricultural biomass based	Springer International.	ISBN: 978-3-319-13846-6.	

		potential material”			2015
Cultivation, Agronomic practices and growth performance of Buckwheat.	Bioresources	Tanveer Bilal Pirzadah, Bisma Malik, Sikandar Farooq, Inayatullah Tahir, Reiaz Ul Rehman Edited vol. on “Molecular Breeding and Nutritional Aspects of Buckwheat	Elsevier	ISBN NO.:0128037148, 9780128037140	2016
Tanveer Bilal Pirzadah, Bisma Malik, Inayatullah Tahir, Reiaz ul Rehman.	Bioresources	Buckwheat: An introspective and future perspective with reference to Kashmir Himalayas.	(Proceedings of International Symposium 21-25 Aug. 2013). Slovenia		2013

Mr. Tajamul Islam (Assistant Professor)

Sheikh Tajamul Islam: Ethylene Signaling in Plants: Introspection" pp. 303-313.	Bioresources	<i>Plant signaling: Understanding the molecular crosstalk:</i> Ed. Hakeem, K. R., Rehman, R., Tahir,	Springer Science+Business Media, LLC; 233. Spring Street, New York, NY 10013,	International: USA. ISBN 978-81-322-1541, ISBN 978-81-322-1542-4.	2013
Sheikh Tajamul Islam: Biomass pellet technology: A green approach for sustainable development	Bioresources	Agricultural Biomass Based Potential Materials: Bisma Malik Tanveer Bilal Pirzadah Sheikh Tajamul Islam Inayatullah Tahir Manoj Kumar Reiaz ul Rehman	Springer	International ISBN: 9778-3-319-13846-6	2014

Dr Peer Abdul Haseeb Shah (DST-INSPIRE Faculty)

Abdul Haseeb Shah: Antifungals: Mechanism of Action and Drug Resistance.	Bioresources	Membrane Transport in Yeast. Advances in Experimental Medicine and Biology: Rajendra Prasad, Abdul Haseeb Shah , Manpreet Kaur Rawal	<i>Springer International Publishing Switzerland</i> ^{[L]_[SEP]}	ISSN 0065-2598. Print/online ISBN 978-3-319-25302-2/978-3-319-25304-6.	2016
Abdul Haseeb Shah: Efflux Pump Proteins of Candida in Clinical Drug Resistance.	Bioresources	Membrane Transport in Yeast. Advances in Experimental Medicine and Biology: Rajendra Prasad, Manpreet Kaur Rawal, Abdul	<i>Springer International Publishing Switzerland</i> ^{[L]_[SEP]}	ISSN 0065-2598. Print/online ISBN 978-3-319-25302-2/978-3-319-	2016

		Haseeb Shah		25304-6.	
Abdul Haseeb Shah: Mechanism of drug resistance in fungi and their significance in biofilms.	Bioresources	Antibiofilm Agents: From Diagnosis to Treatment and Prevention, Part I :Rajendra Prasad, Abdul Haseeb Shah , Sanjiveeni Dhamgayee.	<i>Springer Berlin Heidelberg</i>	Series ISSN 1863-9607. Print/online ISBN 978-3-642-53832-2/ 978-3-642-53833-9.	2014

25 e-contents developed by faculty members for undergraduate level

New Projects sanctioned to the faculties of the department

Projects details

1. Drug resistance in Fungi and the role of PTM : 35 Lacs
2. Clinical Drug Resistance strains of pathogenic candida: drug tolerance: 45 Lacs.
3. Cultivation, genetic diversity and active principal segregation of different accessions of *C. intybus* L (Chicory) growing in Kashmir Himalyas and Ladakh 20 Lacs
4. Self incompatibility studies in almond 30 Lacs

Inter-institutional collaborative projects and associated grants received

Collaboration with Sheri Kashmir Institute of Medical Sciences Soura Srinagar J&K. Project entitled "Clinical Drug Resistance strains of pathogenic candida:.....drug tolerance (45 Lacs aprox.)

Scholars Details

1. **Ms Bisma Malik** (Supervisor: Dr Reiaz Ul Rehman; Co-Supervisor: Prof. Inayatullah Tahir)
2. **Mr Tanveer Bilal Peerzada** (Supervisor: Dr Reiaz Ul Rehman; Co-Supervisor: Prof. Inayatullah Tahir)
3. **Mr Fayaz Ahmad Dar** (Supervisor: Dr Reiaz Ul Rehman; Co-Supervisor: Prof. Inayatullah Tahir).
4. **Mr. Sajad Ahmad Padder** (Supervisor: Dr Reiaz Ul Rehman; Co-Supervisor: Prof. Inayatullah Tahir).
5. **Ms. Asiya Ramzan** (Supervisor: Dr Reiaz Ul Rehman; Co-Supervisor: Prof. Inayatullah Tahir).
6. **Adil Rasool** (Supervisor: Dr Reiaz Ul Rehman; Co-Supervisor: Prof. Inayatullah Tahir)
7. **Wasifa** (Supervisor: Dr Reiaz Ul Rehman; Co-Supervisor: Prof. Inayatullah Tahir)
8. **Miss Mehak Majeed** (Supervisor: Dr Manzoor Ahmad Mir)
9. **Mr. Umar Mehraj** (Supervisor: Dr Manzoor Ahmad Mir)

Student details (from Tehmeena Madam 2012-2017)

Number of value-added courses imparting transferable and life skills offered during the last five years Academic years 2012 -2017

Names of the value added courses with 30 or more contact hours	Department	No. of times offered during the same year	Total no. of students completing the course in the year
2012			
Biodiversity and Bioresources	Bioresources	01	19
Plant Resources	Bioresources	01	19
Animal Resources	Bioresources	01	20
Microbial Resources	Bioresources	01	20
Bioenergy and Biofuels	Bioresources	01	20
Biofertilizers, Biopesticides & Organic Farming	Bioresources	01	20
Biomedicine, Biocosmetics and Bioprospecting	Bioresources	01	20
Plant Resources and Biotechnology	Bioresources	01	16
Animal Cell and Tissue Technology	Bioresources	01	16
Microbial Technology	Bioresources	01	16
Bioindustries Trade and Policy Regulation	Bioresources	01	16
2013			
Resource Regeneration	Bioresources	01	15
Secondary Metabolites	Bioresources	01	19
Bioinformatics	Bioresources	01	19
Biostatistics and Biotechniques	Bioresources	01	19
2014			
Microbial Resources	Bioresources	01	20
Biodiversity and Bioresources	Bioresources	01	19
Biostatistics	Bioresources	01	10
Industrial Entomology	Bioresources	01	14
Biomedicine and Bioprospecting	Bioresources	01	21
Biofertilizers and Organic farming	Bioresources	01	15
Biocontrol and Biopesticides	Bioresources	01	7
Biomolecules	Bioresources	01	18

Secondary Metabolite	Bioresources	01	17
Bioinformatics	Bioresources	01	17
Biostatistics and Biotechniques	Bioresources	01	17
Plant Resources and Biotechnology	Bioresources	01	18
Animal Cell and Tissue Technology	Bioresources	01	18
Microbial Technology	Bioresources	01	18
Bioindustries Trade and Policy Regulation	Bioresources	01	18
2015			
Cellular & Molecular Biology	Bioresources	01	19
Microbial Resources	Bioresources	01	19
Algal Resources	Bioresources	01	19
Human Health and Plant Diet	Bioresources	01	19
Inheritance Biology	Bioresources	01	19
Industrial Entomology	Bioresources	01	22
Bioresource Management	Bioresources	01	18
Organic Farming	Bioresources	01	19
Bioinformatics	Bioresources	01	21
Project Work	Bioresources	01	21
Microbial Technology	Bioresources	01	21
Bioresource Policy and Management	Bioresources	01	21
Human Health and Plant Diet	Bioresources	01	21
2016			
Cellular & Molecular Biology	Bioresources	01	18
Microbial Resources	Bioresources	01	20
Algal Resources	Bioresources	01	19
Human Health and Plant Diet	Bioresources	01	17
Inheritance Biology	Bioresources	01	19
Industrial Entomology	Bioresources	01	20
Bioresource Management	Bioresources	01	21
Organic Farming	Bioresources	01	19
Infectious Diseases and Human Health	Bioresources	01	20
Biological Interactions	Bioresources	01	19
Biomedicine & Bioprospecting	Bioresources	01	19
Biocontrol and Crop Management	Bioresources	01	20

Biocosmetics	Bioresources	01	19
Bioinformatics	Bioresources	01	19
Term Work	Bioresources	01	19
Wood Resource Utilization	Bioresources	01	23
Bioindustries	Bioresources	01	29
Green Technology	Bioresources	01	27

Department/ Centre/ Directorate _____ Bioresources _____

Number of value-added courses imparting transferable and life skills offered during the last five years (Academic years 2012 -2017)

Names of the value added courses with 30 or more contact hours	Department	No. of times offered during the same year	Total no. of students completing the course in the year
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Biodiversity and Bioresources	Bioresources	01	19
Plant Resources	Bioresources	01	19
Animal Resources	Bioresources	01	20
Microbial Resources	Bioresources	01	20
Resource Regeneration	Bioresources	01	20
Bioenergy and Biofuels	Bioresources	01	20
Biofertilizers, Biopesticides & Organic Farming	Bioresources	01	20
Biomedicine, Biocosmetics and Bioprospecting	Bioresources	01	20
Biomolecules	Bioresources	01	18
Secondary Metabolite	Bioresources	01	18
Bioinformatics	Bioresources	01	18
Biostatistics and Biotechniques	Bioresources	01	18
Plant Resources and Biotechnology	Bioresources	01	16
Animal Cell and Tissue Technology	Bioresources	01	16
Microbial Technology	Bioresources	01	16
Bioindustries Trade and Policy Regulation	Bioresources	01	16
2013			
Biodiversity and Bioresources	Bioresources	01	18
Plant Resources	Bioresources	01	18
Animal Resources	Bioresources	01	18
Microbial Resources	Bioresources	01	19
Resource Regeneration	Bioresources	01	15
Bioenergy and Biofuels	Bioresources	01	17
Biofertilizers, Biopesticides & Organic Farming	Bioresources	01	17
Biomedicine, Biocosmetics and Bioprospecting	Bioresources	01	17
Biomolecules	Bioresources	01	19
Secondary Metabolites	Bioresources	01	19

Bioinformatics	Bioresources	01	19
Biostatistics and Biotechniques	Bioresources	01	19
Plant Resources and Biotechnology	Bioresources	01	20
Animal Cell and Tissue Technology	Bioresources	01	20
Microbial Technology	Bioresources	01	2
Bioindustries Trade and Policy Regulation	Bioresources	01	20
2014			
Microbial Resources	Bioresources	01	20
Biodiversity and Bioresources	Bioresources	01	19
Biostatistics	Bioresources	01	10
Industrial Entomology	Bioresources	01	14
Biomedicine and Bioprospecting	Bioresources	01	21
Biofertilizers and Organic farming	Bioresources	01	15
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Bioinformatics	Bioresources	01	21
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Bioresource Policy and Management	Bioresources	01	21

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Biological Interactions	Bioresources	01	19
Biomedicine & Bioprospecting	Bioresources	01	19
Biocontrol and Crop Management	Bioresources	01	20
Biocosmetics	Bioresources	01	19
Bioinformatics	Bioresources	01	19
Term Work	Bioresources	01	19
Wood Resource Utilization	Bioresources	01	23
Bioindustries	Bioresources	01	29
Green Technology	Bioresources	01	27

Alumni details

List the distinguished alumni of the department

1. Mr. Mohd Umer Aftab Employed in J&K Bank umeraftab444@gmail.com
2. Mr. Syed Sami Kozger (Enterprenuer) samisayeedk@gmail.com
3. Mr. Tanveer Bilal Peerzada (Contractual Faculty at J&K Govt) pztanveer@gmail.com
4. Miss. Bisma Malik (Women Scientist- WOS-A) bisma767@gmail.com
5. Miss Asiya Ramzan (Researcher at Kashmir University) bhatasiya329@yahoo.in
6. Miss. Sadaqat Farooq (DST-Inspire Fellow at IIIM Jammu) bhatsadaqat5@gmail.com
7. Miss Wasifa Shah (Researcher at Kashmir University) wasifashah9@gmail.com
8. Miss Mehak Majeed- Junior Research Fellow mehakmajeed995@yahoo.com
9. Mr. Suhail Ahmad (Enterprenuer) suhail67@gmail.com
10. Mr. Aadil Rasool (Researcher at Kashmir University) aadilrasool66@gmail.com
11. Mr. Basharat Ahmad (Researcher at BGSB University) basharatm435@gmail.com
12. Mr. Sajad Ahmad Padder (Researcher at Kashmir University) sajad993@gmail.com
13. Miss Misbah (Employee in J&K Bank) misbah673@gmail.com
14. Mr. Irfan Baba (Police Official in J&K Police) irfanb764@gmail.com
15. Mr. Zahoor (Officer in J&K Police) zahoorkp@gmail.com
16. Mr. Fayaz Ahmad (Bank Executive at J&K Bank) dfayaz5u@gmail.com

Scientists/Faculties visited the Department of Bioresources

Dr. Javed N Agrewala Chief Scientist CSIR-IMTECH Chandigarh (2015)

Dr. Zahoor Ahmad Parray Scientist E-1 CSIR-IIIM Sanat Nagar Srinagar

Dr Manoj Prasad Scientist- E NIPGR JNU Campus New Delhi

Dr. Abid Hamid Dar Scientist E-1 CSIR-IIIM Canal Road Jammu

Placement of pass out students

Mr. Mohd Umer Aftab Employed in J&K Bank umeraftab444@gmail.com
Mr. Syed Sami Kozger (Enterprenuer) samisayeedk@gmail.com
Mr. Tanveer Bilal Peerzada (Contractual Faculty at J&K Govt) pztanveer@gmail.com
Miss. Bisma Malik (Women Scientist- WOS-A) bisma767@gmail.com
Mr. Suhail Ahmad (Enterprenuer) suhail67@gmail.com
Miss Misbah (Employee in J&K Bank) misbah673@gmail.com
Mr. Irfan Baba (Police Official in J&K Police) irfanb764@gmail.com
Mr. Zahoor (Officer in J&K Police) zahoorkp@gmail.com
Mr. Fayaz Ahmad (Bank Executive at J&K Bank) dfayaz5u@gmail.com